Work Orde	er ID 89067 2:57:13 PM	7		*890		0.		***	Page	e 1		
Item ID: Revision ID:	D412-742-043			Accept	*N900	<b>040</b>	100	)* s	etup Sta	1.7	S1*	
Item Name:	Replacement Float	Skidtube							Sto	op *N	S2*	,
Start Date: Required Date: Reference:		art Qty: 1.00 eq'd Qty: 1.00	*1* Cust Item ID: *1* Customer:							-		
Approvals:		MLJ	Date: \2/08 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Z Tooling: SPC (Y/N):		nte:		R	tun Sta	" <b>  \</b>	R1*	
Sequence ID/ Work Center II	-	eration scription		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Draw Nbr	Revision	n Nbr										
D3391	I											
100	DO	CUMENT CONTROL		0.00				1	/2 10	الـ		
*100* Document Control	Ю	Memo	143 is a W/O on it's own	0.00				N/	H 92	) —		
*		Photocopy blu	efile and create labels p	er PPP D412-742-043	CHG005							

												DQA:	Dat	e:	7
NCR:	Yes	/ No				WORK ORDER NON-O	COI	NFORM	MANCE / UP	DATE			_		
												QA Closed:	Dat	e:	
Work Orde	or.					DISPOSITION				AGAINST [	DE	PARTMENT	PROCESS		
Work Orde	CI.	·				Rework	]		Skid-tube	Crosstube			Water Jet		Engineering
Part f	Vo.					Scrap	]		Machining	Small Fab		Pro	d. Eng. Coor.		Quality
						Use-as-is		•	noforming	Finishing		Rec/Stor	re/Packaging		Other
NCR I	Vo.					Work Order Update	]		Large Fab	Composite			Supplier		
Root					Descri	ption of work order update		Initial	Ac	tion		Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verification	ו	QC Inspector
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Landi	ng (	Gear				General		_		_		_			_
	L	Bending				Bend		Grain				Ovalized			Pressure/Forced
		Centre Not Concentric to O/S BOM/Route						Hardwa	re			Over/Under	tolerance	,	Temperature/Cure
		Cracks Broken/Damaged				Broken/Damaged		Inspecti	on Incomplete			Part Incorre	ct		Weld
	Crushed/Crimped.					Burrs		Instruct	ions Incomplete/	Unclear [		Part Lost/Mi	issing		Wrong Stock Pulled
	Cuffs					Contamination		Mainte	nance			Part Moved			
, i	Heat Treat					Countersink		Mislabe	eled			Positioned V	Vrong		_
	Inspection Strip in Tube Cut Too Short				Misread Pov					Power Loss/	Surge		Other		
		Ripples in Bend Drill Holes				Drill Holes		Offset		•					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde August-21-12 12				*890		 		Page 2		
Revision ID:	D412-742-			Accept	*N900	040	100	)* s	Setup Star	14.21
Item Name:	Replacemen	t Float Skidtube						1.	Stop	' *NS2*
Start Date:	9/10/12	Start Qty: 1.00	*1*		Cust Item 1	D:				
Required Date:	9/10/12	<b>Req'd Qty:</b> 1.00	*1*		Customer:			1 1	i	
Reference:			·					1		
Approvals:	Process P	lan:	Date:	Tooling:	D	ate:		R	tun Star	<sup>t</sup> *NR1*
	QC:		Date:	SPC (Y/N):		ate:		1	Stop	*NR2*
Sequence ID/ Work Center II	)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Insp. Number Stamp
110				0.00				1		۱ <u>-</u>
*110*		HandFinishing						1	ch	Il ululu
HandFinish		Memo		0.00					7	
Hand Finishing		241/291. Er 7/16" "T" Pi A/RSikaflex Expiry date:  2-Install wea wearplate, th ones with in A/RSikaflex	nsure tube ends line-up ons.  -241/-291 MUS 3 0  1 2 1 0 3  arplates as per Dwg D33 ten topped with the SS of the second	91. Ensure that plastic was washer. Seal all bolts with shand tighten only bolts with	alignment. using hers are against ikaflex exept				3	
			T" pins once sikaflex is	dry.				i I i		
		MEK degrea		PS Procyon. Remove any e.	xcess off with			1		14

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE														
	-									000	Q/	A Closed:	Da	te:	
Work Orde	er					DISPOSITION				AGAINST D	EPA	RTMENT/	PROCESS		
Part I	No.					Rework Scrap Use-as-is Work Order Update	Skid-tube  Machining noforming Large Fab	Crosstube Small Fab Finishing Composite			Water Jet d. Eng. Coor. e/Packaging Supplier		Engineering Quality Other		
Root					Descri	ption of work order update		Initial	Act	tion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Cr	nief Eng	Descr	ription		Date	Verificatio	n	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved															
						<del>-</del> · · · · · · · · · · · · · · · · · · ·	AUI	LT CATE	GORY						
Landi	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube					General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		4	ion Incomplete tions Incomplete/G enance eled	Unclear	Pa Pa Pa	valized ver/Under art Incorrec art Lost/Mi art Moved ositioned V ower Loss/!	ct ssing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	П	Ripples in	Bend			Drill Holes		Offset		_	_				

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde		0067		*89		<u> </u>				Page 3		
Item ID: Revision ID:	D412-742-0	43		Accept	*N900	040	100	)* 5	Setup	Start	*N:	S1*
Item Name:	Replacement	Float Skidtube								Stop	*N!	S2*
Start Date: Required Date: Reference:	9/10/12 9/10/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:		(6)				
Approvals:	Process Pla	an:	Date:	Tooling:	Da	 ate:	_	I	Run	Start	*NI	R1*
÷	QC:					ate:				Stop	*NI	R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp
120 *120 *120* QC Quality Control		QC5- Inspect part compl	eteness to step on W/O	0.00	7/4/12							·
AG.								· r				
*130*		Packaging		0.00	PPP 8907	13		13.1			121	11300
Packaging Packaging		Memo Identify and Location: PPP Rev:	pack for shipping as per	0.00 PPP D412-742-043								(4)
140	<b>∴</b> .	QC21- Final Inspection -	- Work Order Release	0.00						1	}	<i>γ</i> Λ Λ

0.00

Memo

140

\*140\*

Quality Control

12/11/15 Aft

NCR: Y	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE													
	'										QA Closed:	Date		
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		
Part N	10.					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root					Descri	ption of work order update		Initial	Ac	tion	Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Chief Eng Description				Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved						v.							·	
Landir		Poor -				General	AUI	LT CATE	GURY					
Landi		g Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend				Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		4 '	ion Incomplete ions Incomplete/ enance eled	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
		Torque Waves in Extrusion				Drawing		Out of Calibration						

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence Wave/Twist in Tube Finish

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Page 1

Work Order ID:

89067

Parent Item:

D412-742-043

Parent Item Name:

Replacement Float Skidtube

**Start Date: 9/10/12** 

Required Date: 9/10/12

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev A 05.10.13 New Issue

IPP Rev 06.02.13 ECN 773 dwg @ rev.D

KJ/JLM EC

IPP Rev:C 07-05-28 As per Rev F

JLM

IPP Rev:D 07-12-04 ECN 1072

DD verified by:JLM IPP Rev:E 08-09-08 ecn 08-510 DD verified by:EC

122416

IPP Rev:F 11.11.01 as per DSI9517

	REV.B DD verified	d by:EC							į.	
Component Item All	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure		Qty per Kit Total Qty Qty Issue	Date Status ed Issued
D3391-021 Fwd Tube Assembly	04,851	Manufactured	No			110	Each	0.0000	383635(12)	Il Molio
D3391-023 Mid Tube Assembly	#	Manufactured	No			110	Each	0.0000	385174(1)	Multolio
				Location		Loc Qty	Lo	c Code		
				FP		2			<u> </u>	
				GA		-2			1	
D3391-025 Aft Tube Assembly		Manufactured	No			110	Each	0.0000	1389251 (1	c) Halili
AN3C4A BOLT		Purchased	No			110	Each	1,278.0000	24	10/10
				Location		Loc Qty	Lo	c Code	1 1	• •
				ST350		1278	VI/ I	13021	¥.7.4	·
				1:	20187	31			1	
					20521	28			,	
					20769	38			· · · · · · · · · · · · · · · · · · ·	
					21205	67				
					21556	8			1	
				1.	22151	1102			1	

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
	1										QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	,
Part f						Rework Scrap Use-as-is		1	Skid-tube Machining moforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	No.					Work Order Update	_	mem	Large Fab	Composite	, necyston	Supplier	
Root					Descri	ption of work order update		Initial	Act	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling			i						4				
Operator													
Material												·	
Setup '													
Other							ŀ					1	
Process													
Supplier													
Training		i.											
Unapproved			1	<u> </u>			<u> </u>	T 64TF	6087				
		<u> </u>					AUI	LT CATE	GORY				
Landi		Bending				General Bend	_	Grain		Γ	Ovalized		Pressure/Forced
	H	Centre No	ot Conco	ntric to		BOM/Route	$\vdash$	Hardwa	ro	-	Ovanzed Over/Under	toloranco	Temperature/Cure
	<u> </u>	•	or concei	itiic to	<sup>0/3</sup>  -	Broken/Damaged	-	4	ion Incomplete	<u> </u>	Part Incorre	<b>—</b>	Weld
	-	Crucks				Burrs	-	-	ions Incomplete/l	Unclear	Part Lost/M	<u> </u>	Wrong Stock Pulled
	$\vdash$	Crushed/Crimped. Cuffs				Contamination	-	Mainte	•	- Citicieal	Part Moved		Twing stock rulled
4	-	Heat Trea	t			Countersink	$\vdash$	Mislabe		<u> </u>	Positioned \		
, A	Inspection Strip in Tube					Cut Too Short		Misread			Power Loss/		Other
	Ripples in Bend					Drill Holes		Offset			٦٠٠٠٥، ١٥٥٥/		1
	Torque Waves in Extrusion				n	Drawing			Calibration			-	
141		Turning S			-	Finish		4	Sequence				

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

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August-21-12 12:57:13 PM

Work Order ID: 89067 D412-742-043 **Start Date: 9/10/12** Required Date: 9/10/12 Parent Item: Start Qty: 1.00 Required Qty: 1.00 Parent Item Name: Replacement Float Skidtube AN3C6A Purchased No 110 Each 1,187.0000 10 BOLT Loc Qty Loc Code Location FP001 111982 ST351 1186 111982 2 116419 23 116549 2 116704 12 117619 10 117688 117872 5 118422 13 119449 21 120423 3 120693 88 121682 6 122416 500 122599 500 110 Each 184.0000 AN3C7A Purchased No 11/10/10 **BOLT** Loc Oty Loc Code Location ST351 184 113149 14 116169 117313 10 117619 12 117688 119749 120731 121185 30 121541 2 122141 100

											DQA:	Date:	
NCR: Y	/es	/ No				<b>WORK ORDER NON-</b>	COI	NFORM	MANCE / UP	DATE			
	!										QA Closed:	Date:	
Work Orde	i ar					DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
Part N	No.	•				Rework Scrap Use-as-is		Thern	Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	No.					Work Order Update	]	Ì	Large Fab	Composite		Supplier	
Root						ption of work order update		Initial		tion	Sign &		
Cause		Date	Step	Qty	9	or Non-conformance	Cr	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator	e)												
Material			3.										
Setup		14											
Other							190						
Process													
Supplier						2							
Training													
Unapproved						4							
						F	AUI	T CATE	GORY				
Landi	ng G	Gear			-	General							
	Bending							Grain			Ovalized	,,	Pressure/Forced
	Centre Not Concentric to O/S					BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks Broken/Damaged					Inspection Incomplete					ct	Weld
		Crushed/	Crimped.			Burrs		1	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

August-21-12 12:57:13 PM

Work Order ID:	89067								
Parent Item:	D412-742-043						Start D	Pate: 9/10/12	Required Date: 9/10/12
Parent Item Name:	Replacement Float	Skidtube					Start (	Qty: 1.00	Required Qty: 1.00
AN960C10L washer	NAS1149C0332R	Purchased	No		110	Each	21.0000	38 4 3	8 12/10/10
				<b>Location</b>	Loc Qty		Loc Code		
				ST	21	1	1123248	<u> x38</u>	
				107534	21		_		
D4095-041 Wearplate Assembly		Manufactured	No		110	Each	23.0000	1 M	12/10/10
				<b>Location</b>	Loc Qty		Loc Code		
				FP001	17				
				83809	7				
				85616	10				
				FP002	6				
				<u>85939</u>	6			<u></u>	
D4095-043 Wearplate Assembly		Manufactured	No		110	Each	16.0000	1	1 11/10/10
				<u>Location</u>	Loc Qty		Loc Code		
				FP001	16				
				83479 <sub>4</sub> 85615	7 9	13	385843	_ ((	
D4095-045 Wearplate Assembly	*	Manufactured	No		110	Each	23.0000	1 H	1 12/10/10
	7			Location	Loc Oty		Loc Code		
			٠,	FP001	23				
				77737	1				
			·*.	84081	4				
				85614	8			<u> </u>	
				86244	10				

	1										DQA:	Date	•
NCR:	Yes	/ No				WORK ORDER NON-O	100	VFOR	MANCE / UP	DATE		· · · · · · · · · · · · · · · · · · ·	
	1								- <del></del>		QA Closed:	Date	•
Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part	•	1				Rework Scrap		ı	Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality
NCR I	No.					Use-as-is Work Order Update	]		noforming Large Fab	Finishing Composite	Rec/Stol	re/Packaging Supplier	Other
Root					Descri	ption of work order update	Π	Initial	Ac	ction	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	Chief Eng Description			Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved								-T CATE	CORV				
Landi	ing C	2025	-			General	AUL	LICATE	GURT	<del></del>			
Lanq	ing Gear  Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion					Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	on Incomplete ions Incomplete, nance led	/Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N	ct issing Wrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1		Torque V	vaves in E	extrusion	ו ו	Drawing							

Out of Sequence

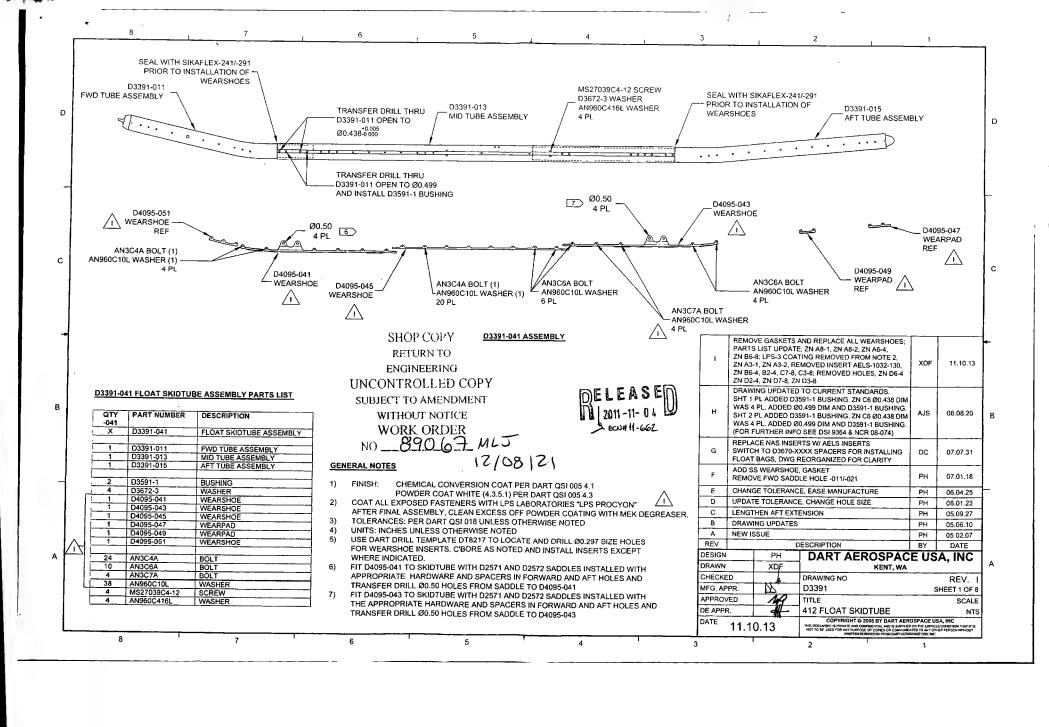
Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

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D SEAL WITH SIKAFLEX-241/-291 PRIOR TO INSTALLATION OF WEARSHOES D3391-021 FWD TUBE ASSEMBLY SEAL WITH SIKAFLEX-241/-291 PRIOR TO INSTALLATION OF D3391-023 TRANSFER DRILL THRU D3391-025 WEARSHOES D3391-021 OPEN TO MID TUBE ASSEMBLY AFT TUBE ASSEMBLY Ø0.438-0 000 TRANSFER DRILL THRU С D3391-021 OPEN TO Ø0.499 AND INSTALL D3591-1 BUSHING D4095-051 Ø0.50 7 Ø0.50 6 WEARSHOE D4095-047 REF 4 PL WEARPAD REF AN3C4A BOLT D4095-043  $\triangle$ AN960C10L WASHER WEARSHOE / D4095-041 D4095-049 4 Pl WEARSHOE WEARPAD AN3C6A BOLT AN3C6A BOLT REF D4095-045 AN960C10L WASHER AN3C4A BOLT - AN960C10L WASHER WEARSHOE 4 PL AN960C10L WASHER AN3C7A BOLT  $\triangle$ AN960C10L WASHER В В **D3391-043 ASSEMBLY** D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST **GENERAL NOTES** QTY PART NUMBER DESCRIPTION CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 FINISH: -043 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3 D3391-043 FLOAT SKIDTUBE ASSEMBLY COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER. D3391-021 FWD TUBE ASSEMBLY MID TUBE ASSEMBLY AFT TUBE ASSEMBLY TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED D3391-023 3) D3391-025 4) UNITS: INCHES UNLESS OTHERWISE NOTED USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT D4095-041 D4095-043 WEARSHOE WHERE INDICATED. WEARSHO FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH D4095-045 WEARSHOE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND D4095-047 D4095-049 D4095-051 WEARPAD DESIGN PH DART AEROSPACE USA, INC TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041 WEARPAD DRAWN KENT, WA XDF WEARSHOE FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH CHECKED DRAWING NO. REV. I THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND 24 BOLT MFG. APPR. D3391 TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043 SHEET 2 OF 8 10 AN3C6A BOLT APPROVED TITLE AN3C7A AN960C10 SCALE WASHER DE APPR. 412 FLOAT SKIDTUBE NTS COPYRIGHT © 2005 BY DART AEROSPACE USA, INC
THIS DOCUMENT IS PRIMATE AND CONTRIBUTION, AND IS SUPPLIED ON THE EXPRESS CONDITION
MOT TO BE USED FOR ANY PURPOSE ON COMMANDATE TO DAY OTHER PERSON
MOTTER PRIMATION PROMISED HEAT ARE SHOWN COLOR TO THE PRIMATION PROMISED HEAT ARE SHOWN CITY. IN DATE 11.10.13 5 3

